

REMARKS

In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. This amendment is believed to be fully responsive to all issues raised in the June 29, 2006 Office

5 Action.

Disposition of Claims

Applicant believes that the listing of claims given on the Office Action Summary page is incorrect. The Office states that claims 1, 4, 5, 7-12, 14, and

10 28-32 are pending in the application. Applicant respectfully disagrees, pointing out that claims 1, 4-12, 14, 15, and 17-32 are pending in the application.

Premature Finality

Applicant believes that the finality of the Office Action dated June 29,

15 2006 is premature, and requests that the finality be withdrawn. As stated in the amendment filed April 12, 2006, the portion of the first Office Action (dated January 12, 2006) addressing §101 rejections is not clear. Applicant indicated being "unsure what claims and what basis the Examiner intended for the rejections," and requested clarification. (*April 12, 2006 Amendment, page 11.*)

20 The Office has provided the requested clarification in the Office Action dated June 29, 2006, but because clarification of the rejection was needed, Applicant believes that the finality of the June 29, 2006 Office Action is

premature. Applicant accordingly respectfully requests that the finality of the June 29, 2006 Office Action be withdrawn.

Amendments to the Specification

5 Amendments are made to the specification as shown above to correct typographical errors.

Amendments to the Claims

10 Claims 1, 12, 14, 15, 22, and 28 are amended as shown above.

Objections to the Claims

Claim 1 is objected to because of a typographical informality. Claim 1 has been amended to correct this typographical error.

15 Rejections to the Claims

35 U.S.C. 101

Claims 1, 4, 5, 7-12, 14, and 28-32 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. The Office contends that the cited claims do not produce a useful, concrete and tangible result. (Office

20 Action, page 2.)

Claim 1 has been amended to clearly indicate that the method is implemented, at least in part, by a computing device, and is therefore directed to statutory subject matter.

5 Claims 4, 5, and 7-11 depend from claim 1 (directly or indirectly), and are therefore also directed to statutory subject matter.

Claims 12 and 14 have been amended to clearly indicate that the data structure is embodied in one or more computer-readable media, and are therefore directed to statutory subject matter.

10 Claim 28 has been amended to clearly indicate that the information system is embodied at least in part as a computing device, and is therefore directed to statutory subject matter.

Claims 29-32 depend from claim 28 (directly or indirectly), and are therefore also directed to statutory subject matter.

15 Accordingly, Applicant respectfully requests that the 101 rejection be withdrawn.

35 U.S.C. 102(e)

Claims 1, 4, 11, 12, 22, 23, 28, 30, and 31 are rejected under 35 U.S.C. 20 102(e) as being anticipated by International Publication Number WO 01/75736 filed by Arora et al. (herein referred to as "Arora"). Applicant respectfully traverses this rejection.

Applicant describes an extensible information system, such as an exemplary content management system, and related methods for classifying, prioritizing, and localizing resources and associated content elements. Content is described, classified, prioritized, and localized with increased flexibility and

5 extensibility over conventional techniques without having to change a data structure of an exemplary content management system hosting the subject matter. (*Application, Abstract.*) Localization refers to a process wherein a subset of the content elements in a system is selected, partitioned, filtered, directed, and/or marked for a target (e.g., a particular population of users,

10 market, and/or a particular need) based on one or more attribute values. (*Application, page 7, lines 10–19.*) Further, each attribute selected for localizing content can be assigned a weight or priority so that important attributes are influential in achieving a given localization and attributes of lesser significance do not unintentionally skew localization results. (*Application, page 8, lines 15–*

15 *18.*)

Specifically, claim 1 recites:

A method, implemented at least in part by a computing device, comprising:

establishing an extensible list of attributes of various information resources in an information system and assigning a priority weight to each of the attributes in the list of attributes, wherein each information resource can be classified according to one or more attributes;

20 establishing an extensible list of values for the attributes in the extensible list of attributes, wherein each value is associated in the list with its corresponding attribute;

selecting a first set of one or more of the values from the extensible list of values to be a first set of target criteria to designate a subset of the information resources, wherein the priority weights of each attribute associated with a value in the first set of target criteria are added to obtain a priority sum for the first set of target criteria;

10 selecting additional sets of target criteria to designate a spectrum of subsets of the information resources; and

 comparing a priority sum of each additional set of target criteria to the priority sum of the first set of target criteria to determine whether the particular one of the additional sets of target criteria designates a more general or a more specific subset of information resources than designated by the first set of target criteria.

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Arora does not show or disclose the following elements of claim 1:

- establishing an extensible list of attributes of various information resources in an information system and assigning a priority weight to each of the attributes in the list of attributes, wherein each information resource can be classified according to one or more attributes;
- selecting additional sets of target criteria to designate a spectrum of subsets of the information resources; and
- comparing a priority sum of each additional set of target criteria to determine whether the particular one of the additional sets of target criteria designates a more general or a more specific subset

of information resources than designated by the first set of target criteria.

Arora describes a system for matching desired characteristics with item attributes. Preferences are matched with regard to two different sides of a transaction. For example, both buyer and seller preferences can be taken into account in creating a match. This allows sellers to eliminate items or services from a particular transaction based on seller goals of profitability, or where it makes a difference as to who the buyer is, or what is being offered in exchange for an item or service for sale. For example, in a job market system, the "seller" is an employer who may require prospective candidates to have a minimum number of years of education. (*Arora, Abstract.*)

With regard to the claimed element of, "establishing an extensible list of attributes of various information resources in an information system and 15 assigning a priority weight to each of the attributes in the list of attributes, wherein each information resource can be classified according to one or more attributes," the Office cites Arora, page 6, lines 12-19; page 7, lines 5-10; and page 6, lines 20-33. (*Office Action, page 4.*) In referencing page 7, lines 5-10, the Office states, "whereas Arora's employers' and recruits' preferences are 20 equivalent to the claimed information resources." Arora also states, "in a job market system, the "seller" is an employer who may require prospective candidates to have a minimum number of years of education." (*Arora, Abstract.*)

Arora, page 6, lines 20-22 state, "A number of attributes are defined and each attribute is then described and valued, or "weighted," **by a buyer, seller, or both.**" Arora clearly describes a scenario in which a buyer's preferences (or potential employee's preferences) are defined as a collection of attributes, 5 where each attribute is weighted by the buyer (or potential employee). Similarly, a seller's preferences (or employer's preferences) are defined as a collection of attributes, where each attribute is weighted by the seller (or employer). Accordingly, the attributes associated with a first buyer may be weighted differently than the same attributes associated with a second buyer. 10 Similarly, the attributes associated with a first seller may be weighted differently than the same attributes associated with a second seller. Furthermore, attributes associated with a particular buyer may be weighted differently than the same attributes associated with a particular seller.

This is in direct conflict with claim 1, which recites, "establishing an 15 extensible list of attributes of various information resources in an information system and assigning a priority weight to each of the attributes in the list of attributes, wherein each information resource can be classified according to one or more attributes." Claim 1 clearly indicates that the extensible list of attributes is a list of attributes of **various** information resources. Furthermore, claim 1 20 clearly indicates that the priority weight is assigned to each of the **attributes in the list.** Accordingly, claim 1 does not describe assigning a weight to the attributes of a particular information resource, where the same attribute could potentially be weighted differently for different information resources. Rather,

an extensible list of attributes of various information resources is established, and a priority weight is assigned to each of the attributes in the list.

Based on the Office's statement that, "Arora's employers' and recruits' preferences are equivalent to the claimed information resources," in order to

5 disclose the recited claim element, Arora would have to describe an extensible list of attributes associated with various buyers and sellers, and assigning weights to the attributes in that list. In contrast, Arora describes assigning weights to the attributes associated with each resource (each buyer or seller, employer or recruit), such that an attribute associated with one resource can

10 have a first weight, and the same attribute associated with a second resource can have a different weight.

With regard to the claimed element of, "selecting additional sets of target criteria to designate a spectrum of subsets of the information resources," the Office cites Arora, page 11, lines 26-32, specifying that, "whereas Arora's

15 function can handle any finite number of attributes is equivalent to the claimed selecting of additional sets of criteria." (*Office Action, page 5.*) Applicant respectfully disagrees with the suggested equivalency.

Arora, page 11, line 26 states, "The weighting function can handle any finite number of attributes," which merely indicates that a set of target criteria

20 can have any finite number of attributes, but in no way describes, "selecting additional sets of target criteria to designate a spectrum of subsets of the information resources," as recited in claim 1.

With regard to the claimed element of, “comparing a priority sum of each additional set of target criteria to the priority sum of the first set of target criteria to determine whether the particular one of the additional sets of target criteria designates a more general or a more specific subset of information resources

5 than designated by the first set of target criteria,” the Office cites Arora, page 11, line 32 – page 12, line 7, specifying, “whereas Arora’s quality of the match is equivalent to the claimed comparing of priority sums of targets.” (*Office Action, page 5.*) Applicant respectfully disagrees with the suggested equivalency.

Arora, page 11, lines 32-33 states, “The quality of the match between 10 buyer 1 and seller 1 depends on both the quality of the match on any given attribute and its importance.” Arora, page 12 lines 8-26 provide a description of how the quality of the match is calculated, and states:

15 To achieve a total match score for any given party to a match, two records are chosen, e.g., the record of the worker who is shopping for a job and one of the many potential employers who are shopping for workers. Then the matching engine calculates the value of the match on each attribute, the weight on each attribute and then takes a linear or non-linear function of the attributes and weights to compute a score. ***That score in this example is the worker’s view of the quality of the match with the seller in question.***

20 The function that combines attributes and weights to obtain a score that rates the quality of the match to one of the parties can have any form. However, in the preferred functional form, given below, there is a linear and non-linear part combined with a power 25 function that normalizes results.

After each party's view of the match is calculated, an overall match score for a pair of agents is computed as a function of each party's score. In the example above, there would be a score that relates the worker's view of the match with the employer in question. But there is also that employer's view of the match with the worker in question. Both are taken into account to get the overall match score. In this way, the algorithm allows for the value of a match to be a function of both the buyer's view of the seller as well as the seller's view of the buyer. Any function can be used to combine buyer score with seller score. In the preferred method described below, it is the square root of the product of the score for agent i and score for agent j, but it need not be restricted to that function.

Arora clearly describes a comparison between two resources (a buyer's preferences and a seller's preferences) that results in two different match values (i.e., the buyer's view of the match and the seller's view of the match), which are then combined to determine an overall match score. This is in contrast to claim 1, which states, "comparing a priority sum of each additional set of target criteria to determine whether the particular one of the additional sets of target criteria designates a more general or a more specific subset of information resources than designated by the first set of target criteria." Claim 1 indicates that a set of target criteria designates a specific subset of information resources, and that a comparison of priority sums is used "to determine whether the particular one of the additional sets of target criteria designates a more general or a more specific subset of information resources." Arora does not disclose a comparison to determine whether the particular one of the additional

sets of target criteria **designates a more general or a more specific subset of information resources**, as claimed. Accordingly, for at least these reasons, claim 1 is allowable over Arora, and Applicant respectfully requests that the 102 rejection be withdrawn.

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Claims 4 and 11 are allowable at least by virtue of their dependence on claim 1. One or more of claims 4 and 11 may also be allowable for independent reasons. For example:

10 Claim 11 recites: "The method as recited in claim 1, wherein each value of each attribute of each information resource is included in the extensible list of values."

With regard to claim 11, the Office cites Arora, page 6, lines 20-33, "whereas Arora's employee characteristics are equivalent to the claimed first set of values." (*Office Action*, page 6.) Applicant fails to see how the cited 15 portion of Arora discloses the claimed elements. Specifically equating an employee's characteristics to the claimed first set of values (which have also been equated by the Office to an information resource) in no way describes an extensible list of values, "wherein each value of each attribute of each information resource is included in the extensible list of values". Rather, Arora 20 only describes that each buyer or seller (employer or employee) can specify weighted preferences, and Arora does not describe a list that includes the value of each attribute of each information resource. Accordingly, for at least this

reason, and by virtue of its dependence on claim 1, claim 11 is also allowable over Arora.

Claim 12 recites:

5 One or more computer-readable media encoded with a data structure, comprising:

10 an extensible table of attributes, wherein various content elements in an information system possess values of the attributes and wherein each attribute in the extensible table of attributes is associated with a priority weight;

15 an extensible table of values of the attributes, wherein each value is associated with its corresponding attribute; and

20 multiple sets of one or more values to designate multiple subsets of content elements, wherein a priority weight of each attribute associated with each value in each set is summed to determine a priority sum of the respective set and the priority sums of respective sets in the multiple sets can be compared to determine similarities and differences between subsets of content elements designated by the multiple sets.

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Arora does not show or disclose, a data structure comprising an extensible table of attributes; an extensible table of values of attributes; and multiple sets of one or more values to designate multiple subsets of content elements.

With regard to "an extensible table of attributes," and, "an extensible table of values," the Office cites Arora, page 6, lines 12-19, "whereas Arora's parameters can be modified at any time is equivalent to the claimed extensible

table." (*Office Action*, page 6.) The cited portion of Arora states, "the engine is a completely flexible, fully configurable piece of software that can run virtually any kind of market." However, the Office has not cited any portion of Arora that describes a specific data structure comprising a table of attributes, a table of 5 values, and multiple sets of one or more values to designate multiple subsets of content elements. Accordingly, for at least these reasons, claim 12 is allowable over Arora, and Applicant respectfully requests that the 102 rejection be withdrawn.

10 Claim 22 has been amended, rendering the 102 rejection of claim 22 moot. Furthermore, Applicant believes that claim 22, as amended, is allowable over Arora. Specifically, Arora does not disclose, "associating priority weight values with attributes in a dynamic list of attributes **associated with a plurality of information resources** in an information system," as recited in claim 22.

15 Arora describes weighted attributes that describe a particular buyer's or a particular seller's preferences, but in a way that each buyer and each seller may be described in terms of different attributes, or in terms of the same attributes, but having different weights. Arora does not describe, "associating priority weight values with attributes in a dynamic list of attributes associated 20 with a plurality of information resources," as claimed. Accordingly, claim 22, as amended, is allowable over Arora.

Claim 23 is allowable at least by virtue of its dependence on claim 22.

Claim 28 has been amended, rendering the 102 rejection of claim 28 moot. Furthermore, Applicant believes that claim 28, as amended, is allowable over Arora. Specifically, Arora does not disclose, "a plurality of information resources, each having one or more attributes;" and, "an extensible table of the attributes, wherein each attribute is assigned a weight," as claimed.

Arora describes weighted attributes that describe a particular buyer's or a particular seller's preferences, but in a way that each buyer and each seller may be described in terms of the same attributes, but having different weights. Claim 28 clearly indicates that the attributes of the extensible table are the same attributes associated with the plurality of information resources. Accordingly, the weight assigned to an attribute remains the same regardless of with which information resources the attribute is associated. Accordingly, claim 28, as amended, is allowable over Arora.

Claims 30 and 31 are allowable at least by virtue of their dependence (direct or indirect) on claim 28.

35 U.S.C. 103(a)

Claims 5, 6, 14, 15, 17-21, 24, 25, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arora in view of U.S. Patent Application Publication Number 2003/0130887 filed by Nathaniel (herein referred to as "Nathaniel"). Applicant respectfully traverses this rejection.

Claims 5, 6, 14, 24, 25, and 32 are allowable as depending from an allowable base claim and for their own recited features which are neither shown nor described in the references of record. To the extent that claims 1, 12, 22, and 28 are allowable over Arora, the further rejection of claims 5, 6, 14, 24, 25, 5 and 32 over the reference to Nathaniel is not seen to add anything of significance because Nathaniel does not correct the deficiencies of Arora. Accordingly, claims 5, 6, 14, 24, 25, and 32 are allowable over Arora in view of Nathaniel, and Applicant respectfully requests that the 103 rejection be withdrawn.

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Claim 15 has been amended, rendering the 103 rejection of claim 15 moot. Furthermore, Applicant believes that claim 15, as amended, is allowable over Arora in view of Nathaniel. Specifically, claim 15 recites:

15 a classification engine to determine attributes of a plurality of information resources in an information system;

an attribute table manager in communication with a dynamic table of attributes and priorities, wherein the dynamic table of attributes and priorities includes the attributes of the plurality of information resources; and

20 a prioritizer to assign priority weights to each attribute in the table of attributes and priorities.

The combination of Arora and Nathaniel does not teach or suggest the cited claim elements.

25 As described above with reference to claim 28, Arora describes weighted attributes that describe a particular buyer's or a particular seller's preferences,

but in a way that each buyer and each seller may be described in terms of the same attributes, but having different weights. Nathaniel adds nothing to the teaching of Arora in this regard.

Claim 15 clearly indicates that the attributes included in the dynamic 5 table of attributes and priorities are the same attributes associated with the plurality of information resources. Accordingly, the priority weight assigned to a particular attribute in the table of attributes and priorities applies to each information resource with which the particular attribute is associated. In contrast, Arora describes each buyer or seller specifying a weight for each 10 preference, such that the weight for a particular preference may differ from one buyer or seller to another. Accordingly, claim 15, as amended, is allowable over Arora in view of Nathaniel, and Applicant respectfully requests that the 103 rejection be withdrawn.

15 Claims 17-21 are allowable at least by virtue of their dependence (direct or indirect) on claim 15. One or more of claims 17-21 may also be allowable for independent reasons.

Claims 7-10, 26, 27, and 29 are rejected under 35 U.S.C. 103(a) as 20 being unpatentable over Arora in view of U.S. Patent Application Publication Number 2002/0032638 filed by Arora et al. (herein referred to as "Arora/638"). Applicant respectfully traverses this rejection.

Claims 7-10, 26, 27, and 29 are allowable as depending from an allowable base claim and for their own recited features which are neither shown nor described in the references of record. To the extent that claims 1, 22, and 28 are allowable over Arora, the further rejection of claims 7-10, 26, 27, and 29 over the reference to Arora/638 is not seen to add anything of significance because Arora/638 does not correct the deficiencies of Arora. Accordingly, claims 7-10, 26, 27, and 29 are allowable over Arora in view of Arora/638, and Applicant respectfully requests that the 103 rejection be withdrawn.

10 Conclusion

Claims 1, 4-12, 14, 15, and 17-32 are believed to be in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents immediate issuance of the application, the Examiner is encouraged to contact 15 the undersigned agent to discuss the unresolved issue.

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